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HEWLETT-PACKARD COMPANY			EXAMINER	
Intellectual Property Administration			DAILEY, THOMAS J	
3404 E. Harmony Road			ART UNIT	
Mail Stop 35			PAPER NUMBER	
FORT COLLINS, CO 80528			2452	
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			11/16/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary**Application No.**

10/698,016

Applicant(s)

FRIETSCH, THOMAS

Examiner

THOMAS DAILEY

Art Unit

2452

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 32-52 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 32-47 is/are rejected.
- 8) ☒ Claim(s) 48-52 is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/559a)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

1. Claims 32-52 are pending.

Response to Arguments

2. The claim objections have been withdrawn in view of the entered amendments, however new objections are made below.
3. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

4. Claims 48-52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims while also alleviating the objections outlined below.

Claim Objections

5. Applicant is advised that should claims 32-34, 38, and 48 as well 35-37, 39, and 49 be found allowable, they will be objected to under 37 CFR 1.75 as being substantial duplicates thereof. Independent claim 32 appears to be the same as independent claim 35 and the rest depend or are related to those claims and recite the same features. Further should claims 40-42 and 50 as well as 43-45

and 51 be found allowable, they will be objected to under 37 CFR 1.75 as being substantial duplicates thereof. Again, independent claims 40 and 43 appear to recite the same features.

- (a) When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 32-33, 35-36, 38, 39, 40-41, 43-44, and 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrow et al (US Pub. No. 2003/0005100), hereafter "Farrow," in view Barnard et al (US Pub. No. 2003/0005100), hereafter "Barnard," and in further view of Bondi (US Pat. 5,710,885).
8. As to claim 32, Farrow discloses a method of discovering that a particular network node has been connected to a computer network including (a) plural

nodes, one of which is the particular node, and (b) a server arrangement including a network portion and a discovery portion (Abstract), the method comprising:

responding to an establishment of a connection of the particular network node to the network, the network portion of the server arrangement receiving an access request from the particular node, wherein the particular node has an assigned address by a device in the network ([0036], lines 6-13; client has address assigned by DHCP server and issues a registration request);

in response to receiving the access request, the network portion authenticating the particular network node ([0036], lines 10-25; the binding server authenticates the client)

the network portion sending a discovery request and the assigned address of the particular network node to the discovery portion of the server arrangement after the network portion has successfully authenticated the particular network node ([0036], lines 35-43, binding server sends authenticated credentials to server manager to be stored in central database ("discovery portion"));

the discovery portion by storing the assigned address of the particular network node ([0036], lines 35-43, binding server sends authenticated credentials (credentials includes IP address, see lines 22-25) to server manager to be stored in central database ("discovery portion")).

But, Farrow does not explicitly disclose the discovery portion initiating a discovery program that performs a discovery procedure for the particular network node;

the discovery procedure for the particular network node, initiated by the discovery request from the network portion, including polling other nodes in the network to determine a network topography, the polled network topology including at least some of the other nodes to which the particular network node is connected, and to determine the configuration of the particular network node.

However, Barnard discloses a network portion supplying a discovery request and the assigned address of a particular node to a discovery portion ([0074], lines 30-35, DHCP server supplies and IP address to discovery module ("discovery portion") after printing device ("particular node") has IP address (i.e. now the printer can communicate with other devices on the network and has access to the network);

the discovery portion responding to the discovery request applied to the discovery portion by the network portion by storing the assigned address of the particular node ([0077], lines 5-15, the IP address is provided so that SNMP may be used to communicate between network management device and printing device ("particular node")) and initiating a discovery program that performs a discovery procedure for the particular node in response to the supplying of the discovery request and the assigned address of the particular node to the discovery portion ([0077], lines 11-22, SNMP request (a function of "a discovery

procedure") is sent out which retrieves information from the printing device via its IP address);

the discovery procedure for the particular network node including determining the configuration of the particular network node ([0077], lines 12-27).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Barnard and Farrow in order to keep real time status information of active nodes in a network thereby allowing for easier management of said network.

But, Barnard and Farrow may not disclose the discovery procedure polling other nodes in the network to determine network topology initiated by a discovery request. Rather, Barnard appears to poll nodes to determine topology a singular node at a time, subsequent to their discovery.

However, Bondi discloses a discovery procedure for the particular network node, initiated by a discovery request, includes polling other nodes in the network to determine a network topology, the polled network topology including at least some of the other nodes to which the particular network node is connected, and to determine the configuration of the particular network node (column 6, lines 47-50; new nodes are polled in bulk (i.e. not just a particular node), further still polling is not limited to new nodes as disclosed in column 7, lines 36-42, "pings are sent to newly discovered nodes and nodes identified in the status poll transmission"; further column 2, lines 18-30, discloses how pings are used to retrieve topological information.)

Therefore, it would have been obvious to combine the teachings of Barnard and Farrow with Bondi in order to obtain a complete real-time topological representation of all nodes of the network, rather than simply polling one node at a time as disclosed in Barnard.

9. As to claims 35, 38, 39, 40, 43, and 46, they are rejected by a similar rationale to that set forth in claim 32's rejection.
10. As to claim 33, Barnard discloses the discovery portion receives a sequence of discovery requests including assigned addresses of various nodes of the network which have requested access to the network, the discovery portion storing the assigned addresses of the received request from the various nodes ([0077], lines 12-27 and Fig. 7).
11. As to claims 36, 41, 44, and 47, they are rejected by a similar rationale to that set forth in claim 33's rejection.
12. Claims 34, 37, 42, and 45, are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrow and Barnard and BONDl in further view of what was well known in the art as applied to claims 36, 41, 44, and 47, and in further view of what was well known in the art at the time of the invention.

13. As to claim 34, 37, 42, and 45, Farrow, Barnard, and BOND! discloses the invention substantially with regard to the parent claims 36, 41, 44, and 47, and but do not explicitly disclose the sequence of assigned addresses is stored as a stack that the discovery portion processes in first-in-first-out order. Barnard's does not go into specifics as to how the addresses are stored, just that they are.

Although Farrow and Barnard do not explicitly suggest the use of a first-in-first-out order (FIFO) stack, Official Notice is taken (MPEP 2144.01) that using a FIFO stack as a means to store data was a well-known practice at the time of the applicant's invention was made, which is deployed to more easily manage memory operations. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to take advantage of a known standard to modify the teachings Barnard in order to achieve such benefits.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
15. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is 571-270-1246. The examiner can normally be reached on Monday thru Friday; 9:00am - 5:00pm.
17. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on 571-272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas J Dailey/
Examiner, Art Unit 2452